

Our Docket No.: 42P13008

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Chang)

Examiner: Patel, Nhir B.

Application No.: 10/022,760)

Art Group: 3743

Filed: December 14, 2001)

For: Use of Adjusted Evaporator)

Section)

Area of Heat Pipe that is Sized
to Match)

the Surface Area of an
Integrated Heat)

Spreader Used in CPU Packages
in)

Mobile Computers

Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION UNDER 37 CFR 1.131 IN SUPPORT OF PRIOR INVENTION

Sir :

We, Je Young Chang and Eric DiStefano, declare:

- 1 -

Declaration Under Rule 1.131
in Support of Application
Application No. 10/022,760

1. We are inventors of the claims of the above-captioned patent application ("the Application") and inventors of the subject matter described therein.
2. Prior to September 19, 2001, the filing date of U.S. Patent No. 6,504,720 cited in an Office Action mailed January 24, 2006, the invention claimed in the Application had been conceived and reduced to practice in the United States.
3. Attached Exhibit A is a redacted copy of an invention disclosure form describing the design of the Use of Adjusted Evaporator Section Area of Heat Pipe That is Sized to Match the Surface Area of an Integrated Heat Spreader Used in CPU Packages in Mobile Computers, and establishes that the subject matter claimed in the Application had been reduced to practice in the United States prior to September 19, 2001.
4. Exhibit A (the invention disclosure) describes the apparatus of a heat pipe with an adjusted evaporator section area that is sized to match the surface area of an integrated heat spreader, as is described and claimed in our application. More specifically, the figure on page 4 of Exhibit A illustrates the features of claim 1. The feature of "an absorber section of a heat pipe attached to a first end of a base of the heat pipe to remove heat from a heat spreader, wherein the absorber section having a size of at least a surface area of the heat spreader" is shown in the bottom figure (b) and described as the "heat pipe with graded evaporator section covering the whole IHS [integrated heat spreader] area." The features of "a dissipater section of the heat pipe attached to a second end of the base of the heat pipe, wherein a width of the dissipater section is greater than a width of the base of the heat pipe, and the dissipater section having a size of at least a surface area of the absorber section" and "a plurality of fins formed of the second end of the base, the

- 2 -

Declaration Under Rule 1.131
in Support of Application
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plurality of fins attached to a bottom surface of the dissipater section, the fins having a length equal to the width of the base" are shown in the first figure (a) as the "condenser region with a heat exchanger." Further support for these features is found at page 3, point 1, where it is stated that "different HP widths are proposed between the evaporator region and the other section of the heat pipes."

5. The subject matter claimed in the application was actually reduced to practice prior to September 19, 2001 because the technique claimed in Exhibit A had been successfully implemented before this date, as noted on page 2, point 5 in Exhibit A, where it is stated that simulations had been completed.

We further declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application of any patent issuing thereon.

Dated: Mar. 21, 2006


Je Young Chang

Dated: _____, 2006

Eric DiStefano